

CLAIMS

1 Gob distributor (1) for distributing gobs of molten glass in a predeterminable
sequence onto moulds of a plurality of sections of a glass forming machine,

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having at least one curved scoop channel (19) which can be pivoted in a reciprocating
manner about a vertical axis (18) by means of a drive (14),

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wherein in normal operation an upper end (22) of each scoop channel (19) receives all
gobs obtained from an outlet orifice of a gob feeder,

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wherein a lower end (20) of each scoop channel (19) can be successively orientated,
by the pivoting motion, so as to be aligned with a channel system (21) leading to the
respective section,

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wherein an annular pinion (58, 59, 60, 85) is disposed coaxially and in a driving
connection with the upper end (22) of each scoop channel (19),

and wherein the drive (14) has an electric servomotor (15) and the electric servomotor
(15) is connected to the at least one annular pinion (58, 59, 60, 85) via a gear
mechanism (46),

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characterised in that the gear mechanism (46) comprises:
a screw (44) which can be rotationally driven in a reciprocating manner by the electric
servomotor (15), a worm wheel (47) engaged with the screw (44), and a toothed wheel
(53) which is non-rotational and coaxial with respect to the worm wheel (47), wherein
the toothed wheel (53) is in a driving connection with the at least one annular pinion
(58, 59, 60, 85).

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2 Gob distributor as claimed in claim 1,

characterised in that when the gob distributor (1) has only one scoop channel (19) the
gear mechanism (46) has an intermediate toothed wheel (54),

wherein the intermediate toothed wheel (54) meshes on the one hand with the toothed wheel (53) and on the other hand with the annular pinion (58).

5 3 Gob distributor as claimed in claim 1,

characterised in that when the gob distributor (1) has more than one scoop channel (19) the gear mechanism (46) has two intermediate toothed wheels (54, 55) disposed laterally spaced apart from each other,

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wherein each intermediate toothed wheel (54, 55) meshes on the one hand with the toothed wheel (53) and on the other hand with at least one of the annular pinions (58, 59, 60, 85).

15 4 Gob distributor as claimed in claim 3,

characterised in that in the case of double-gob operation each intermediate toothed wheel (54, 55) meshes with only one of the annular pinions (58, 59).

20 5 Gob distributor as claimed in claim 3,

characterised in that in the case of triple-gob operation the one intermediate toothed wheel (54) meshes with one (58) of the annular pinions (58, 59, 60), and the other intermediate toothed wheel (55) meshes with the two remaining annular pinions (59, 60).

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6 Gob distributor as claimed in claim 3,

characterised in that in the case of quadruple-gob operation each intermediate toothed wheel (54, 55) meshes with two (58, 85; 59, 60) of the annular pinions (58, 59, 60, 85).

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7 Gob distributor as claimed in any one of claims 1 to 6,

characterised in that each annular pinion (58, 59, 60, 85) is radially attached as an externally-toothed toothed ring to the outside of a sleeve (61),

5 that the sleeve (61) is disposed coaxially with the upper end (22) of the associated scoop channel (19) and allows the gobs to pass through an axial aperture (62),

and that the sleeve (61) is rotatably mounted in a housing (13) and is in a rotational driving connection with the upper end (22) of the associated scoop channel (19).

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8 Gob distributor as claimed in claim 7,

characterised in that, coaxially with the sleeve (61), a connection sleeve (39) is connected in a non-rotational manner on the one hand to the sleeve (61) and on the
15 other hand to the upper end (22) of the associated scoop channel (19),

that the connection sleeve (39) is mounted in a sealed and rotatable manner in an outer sleeve (36) attached to the housing (13),

20 that the connection sleeve (39) has, in the radially outwards direction, a first (67) and a second annular duct (70) which are sealed with respect to each other and are connected to cooling ducts (25, 26) in a wall of the associated scoop channel (19),

25 that the first annular duct (67) is continuously connected to a cooling medium supply line (37, 66) in the outer sleeve (36),

and that the second annular duct (70) is continuously connected to a cooling medium return line (71, 38) in the outer sleeve (36).

30 9 Gob distributor as claimed in claim 7,

characterised in that, coaxially with the sleeve (61), a connection sleeve (39) is connected in a non-rotational manner on the one hand to the sleeve (61) and on the

other hand to the upper end (22) of the associated scoop channel (19),

that the connection sleeve (39) is mounted in a sealed and rotatable manner in an outer sleeve (36) attached to the housing (13),

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that the connection sleeve (39) has, in the radially outwards direction, a first annular duct (67) which is connected to cooling ducts (25), which are open to the atmosphere, in a wall of the associated scoop channel (19),

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and that the first annular duct (67) is continuously connected to a cooling gas supply line (37, 66) in the outer sleeve (36).

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Gob distributor as claimed in any one of claims 2 to 9,

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characterised in that each intermediate toothed wheel (54; 55) is divided into two partial toothed wheels (94, 95) which succeed each other in the axial direction,

that the two partial toothed wheels (94, 95) of each intermediate toothed wheel (54; 55) can be adjusted with respect to each other in the peripheral direction in order to minimise the clearance in the gear mechanism (46),

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and that the respective relative position can be fixed (102).

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Gob distributor as claimed in claim 10,

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characterised in that the relative position can be adjusted by means of an eccentric bolt (96),

that the eccentric bolt (96) is rotatably mounted with a first portion (97) with a circular cross-sectional surface in a complementary circular, axially parallel bore (98) in one partial toothed wheel (94),

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and that the eccentric bolt (96) is disposed with an eccentric second portion (99) with

a non-round cross-sectional surface in an axially parallel adjusting bore (100) in the other partial toothed wheel (95).

12 Gob distributor as claimed in claim 10 or 11,

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characterised in that both partial toothed wheels (94, 95) of each intermediate toothed wheel (54; 55) are engaged with both the toothed wheel (53) and also with the at least one annular pinion (58, 59, 60, 85).

10 13 Gob distributor as claimed in any one of claims 1 to 12,

characterised in that between the electric servomotor (15) and the screw (44) a coupling (16) is disposed.

15 14 Gob distributor as claimed in any one of claims 1 to 13,

characterised in that the gob distributor (1) is mounted on the glass forming machine so as to be able to pivot in a reciprocating manner about a vertical axis (4).

20 15 Gob distributor as claimed in claim 14,

characterised in that the pivoting movement is effected by means of a piston-cylinder unit (6), the cylinder (7) of which is articulated in a pivotable manner on the glass forming machine and the piston rod (9) of which is articulated on a lever (11) of the Gob distributor (1).

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16 Gob distributor as claimed in claim 15,

characterised in that a positioning body (89) is attached to the lever (11) spaced apart from the longitudinal axis (4),

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and that in a normal - not pivoted out - position of the gob distributor (1) the positioning body (89) cooperates with a positioning stop (90), which is attached to the

machine, and positions the gob distributor (1) in the normal position both in the horizontal and also in the vertical direction.